

Komunikasi Ilmiah di Perguruan Tinggi pada Era Perpustakaan 4.0

Kuncoro Foe

Presentation Outline

- Tantangan pendidikan tinggi di era informasi
- Peran kepemimpinan dalam menjamin keberlanjutan pengelolaan perguruan tinggi
- Strategi perubahan/transformasi melalui pengelolaan perpustakaan yang profesional

Industrial Revolution 4.0

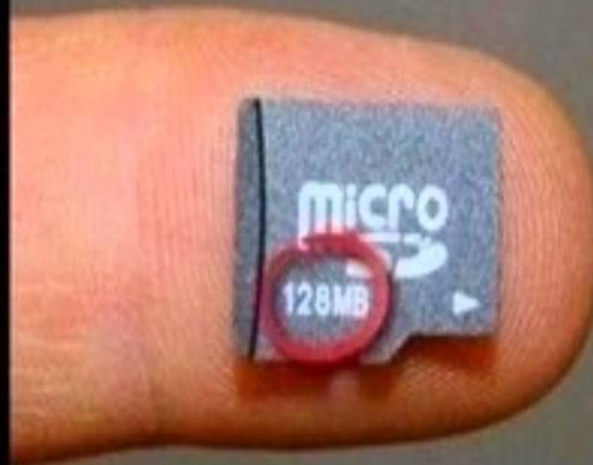
- Intelligent Manufacturing Program
- Intelligent Operation Program
- Internet of Things Sensor Network (Real Time)
- Precision Machine and Device
- Cyber-Physical Security Focus:
 - Process Modelling Simulation
 - IT Enabled Manufacturing
 - Robot to Robot Communication
 - Autonomy with Artificial Intelligence Machine Learning
 - Human-Machine Interaction
- Manufacturing Big Data (Cloud Computing and Big Data Analytics)

Physical Size Smaller but Bigger Capacity

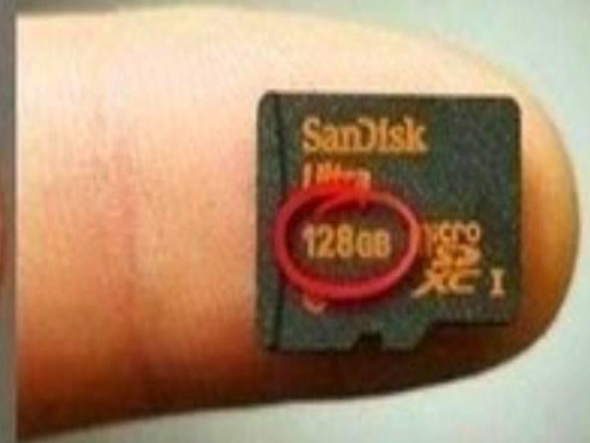


5 Megabytes ... \$120,000

2005



2014



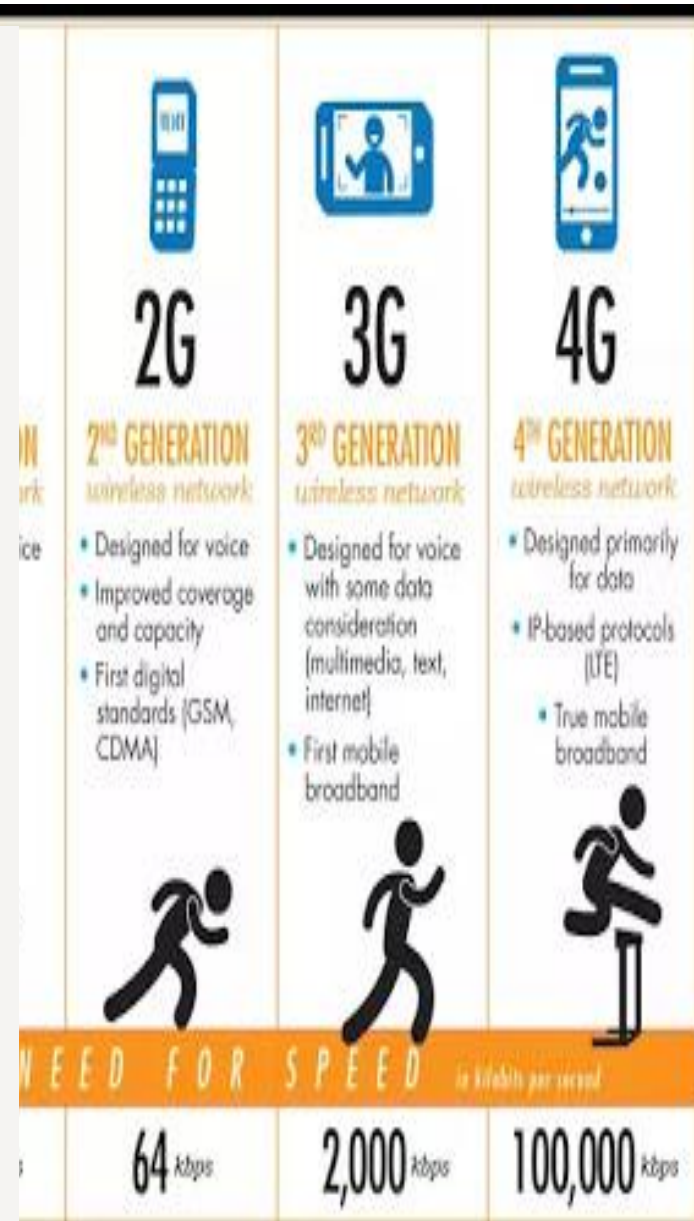
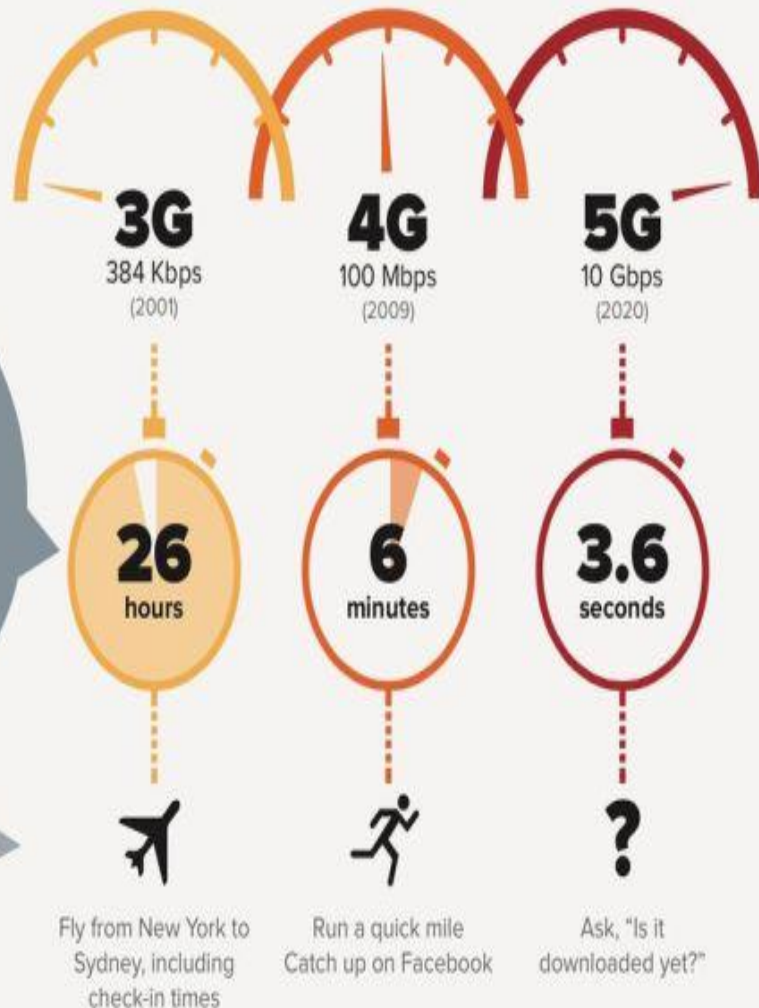
Speed Revolution in Digital Communication



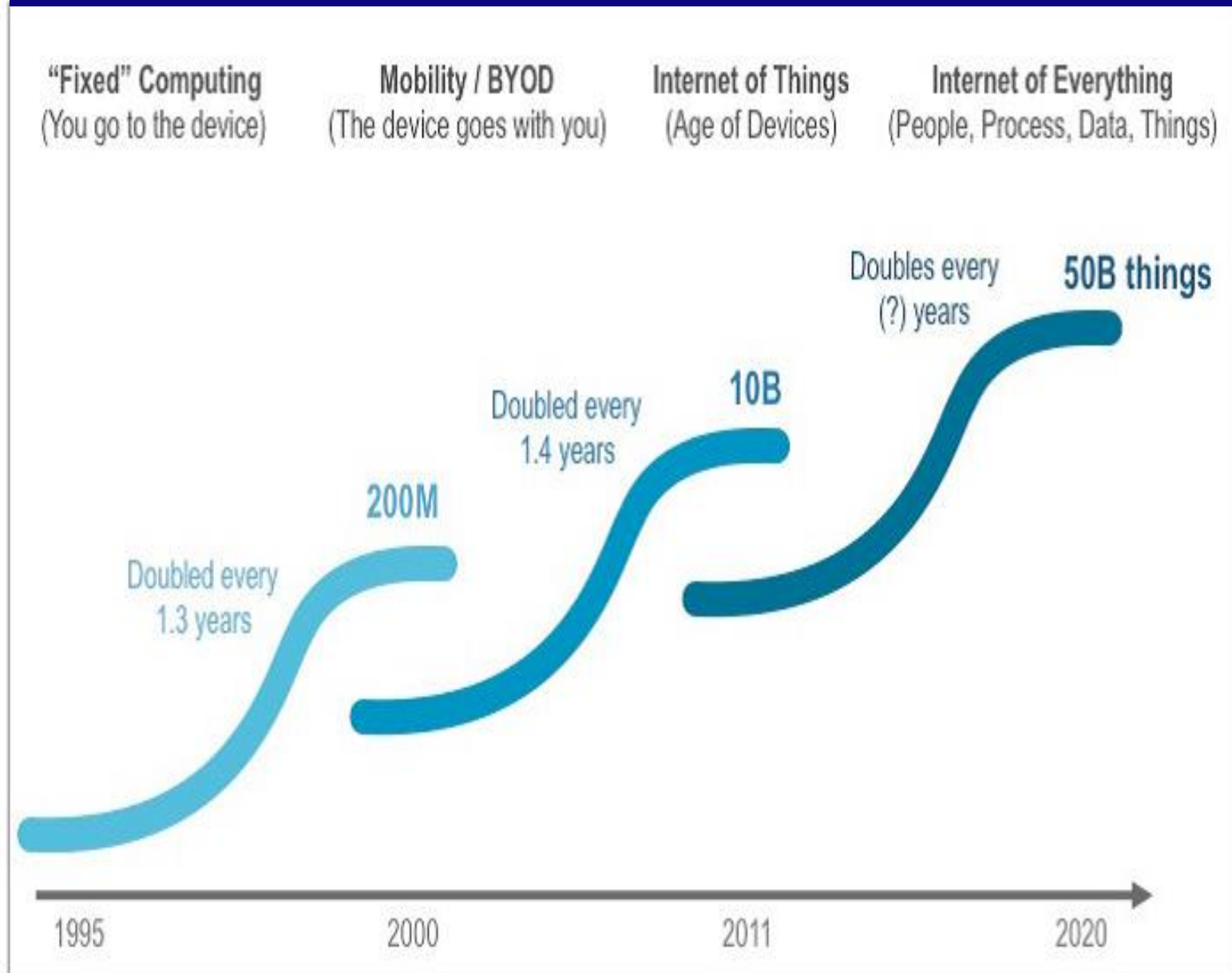
Network Type

How long would it take to download the two-hour-long "Guardians of the Galaxy"?

What you could do while waiting



Growth of Number of Things Connected to the Internet



Source: Cisco IBSG, 2013

Karakteristik Big Data

- Volume data terlalu banyak dan selalu bertambah seiring berjalannya waktu
- Pengkinian data sangat cepat (perekaman frekuensi kejadian secara cepat)
- Beragam variasi tipe data dengan kemajemukan format data (teks, gambar, video, audio)
- Dikumpulkan oleh mesin secara pasif tanpa keterlibatan manusia
- Akurasi (*veracity*) data semakin terjamin

Tantangan Big Data

- Cara menginterpretasi data
- Membutuhkan ruang penyimpanan data yang besar
- Membutuhkan perangkat keras komputer dengan kemampuan besar
- Relevansi pengetahuan dan keterampilan manusia menurun dengan peran *machine learning* sebagai metode analisis untuk memperoleh *insights*

16 Skills for New Generation Jobs

Future Leader According to Citi Bank Indonesia

Leadership Lessons

Volatility

- Translate data into information
- Communicate early
- Ensure your intent is understood

Uncertainty

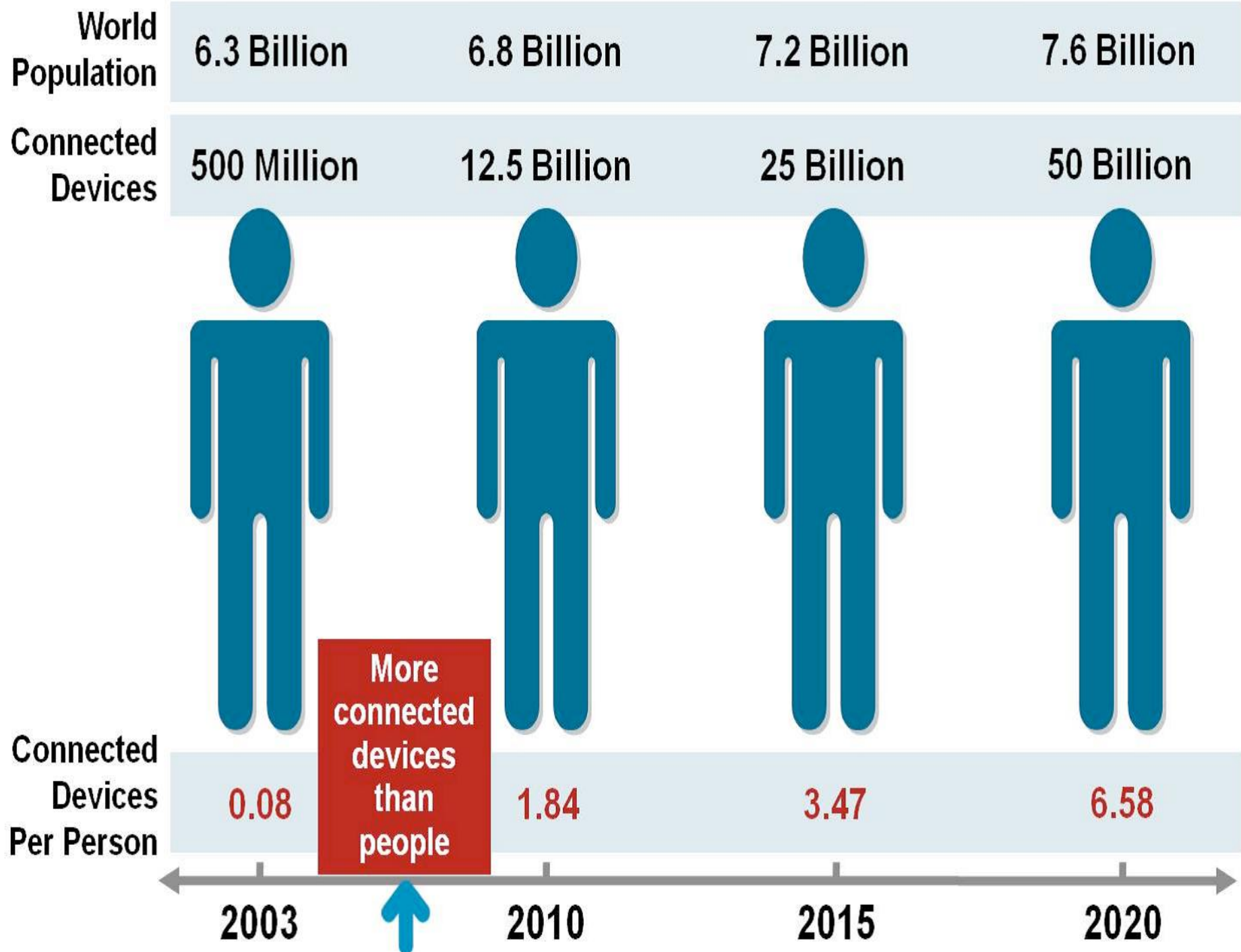
- Get a fresh perspective
- Be flexible
- Glance back, look ahead

Complexity

- Develop collaborative leaders
- Stop seeking permanent solutions
- Train tomorrow's heroes now

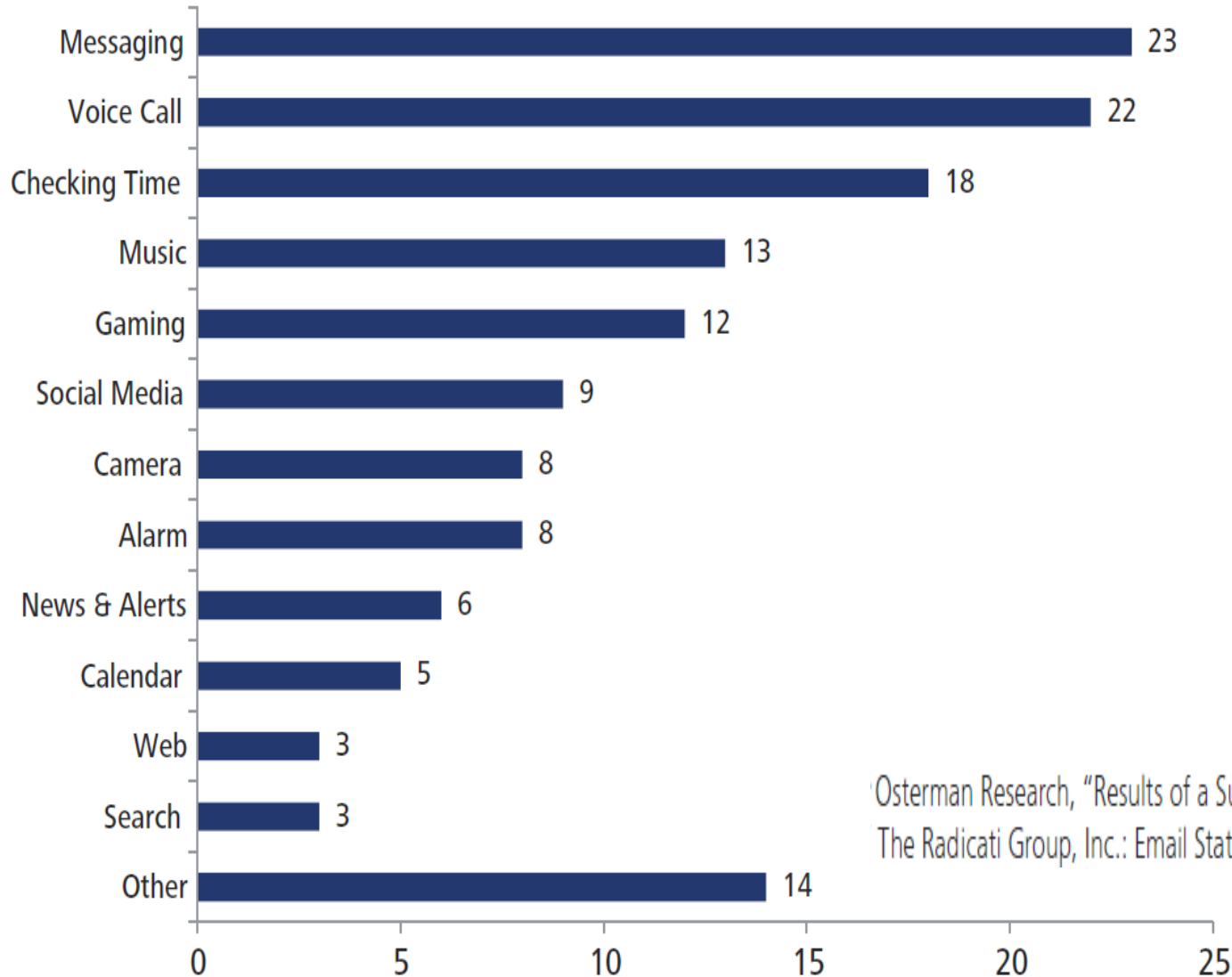
Ambiguity

- Listen well
- Think Divergently
- Setup incremental dividends



Smartphone Users Reach to Phone ~ 150x a Day could be Hands-Free with wearables

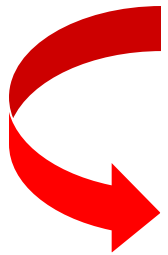
of Times Typical User Checks Phone per Day



Osterman Research, "Results of a Survey with Email Users", April 2013
The Radicati Group, Inc.: Email Statistics Report, 2013-2017

Mengapa PT Harus ber-Kualitas ?

- Globalisasi
- Perubahan Teknologi
- Tuntutan Pengguna Jasa PT Semakin Meningkat
- Tingkat Persaingan Semakin Tinggi
- Efektifitas dan Efisiensi Organisasi/Institusi (PT)



SURVIVE !!!



World Class

Hanya Institusi yang Memperhatikan Kualitas yang Dapat Bertahan Hidup dan Memenangkan Persaingan

Common jobs that might not exist in 20 years

- Cashiers → self-checkout machines
- Newspaper delivery → electronic reading devices
- Travel agents → travel websites
- Taxi drivers → self-driving cars
- Journalists → artificial intelligence software
- Social media expert → everyday individuals
- Telemarketers → robots
- Assembly line workers → robots

How About This Profession ???

- College Professors
- Librarians
- Bankers
- Accountants
- Insurance sales person
- Postmaster

Cumulative value creation is relatively low ?

Jobs that didn't exist 10 years ago

- App designer
- App developer
- Big data analyst
- Blogger
- Data analytics specialist
- CLO (chief listening officer)
- Cloud computing services
- Cloud services specialist

DIKENAL

DIPILIH

SUSTAIN

KUALITAS MUTU QUALITY
PERCURIAN TINGGI
SWASTHA

Pengertian tentang Mutu dan Penjaminan Mutu

APA ITU : MUTU ?

Sesuai dengan harapan

PELANGGAN

Sesuai dengan harapan

PEMANGKU KEPENTINGAN

Seluruh ciri khas dari hasil dan pelayanan memenuhi

TUNTUTAN KEBUTUHAN dan HARAPAN

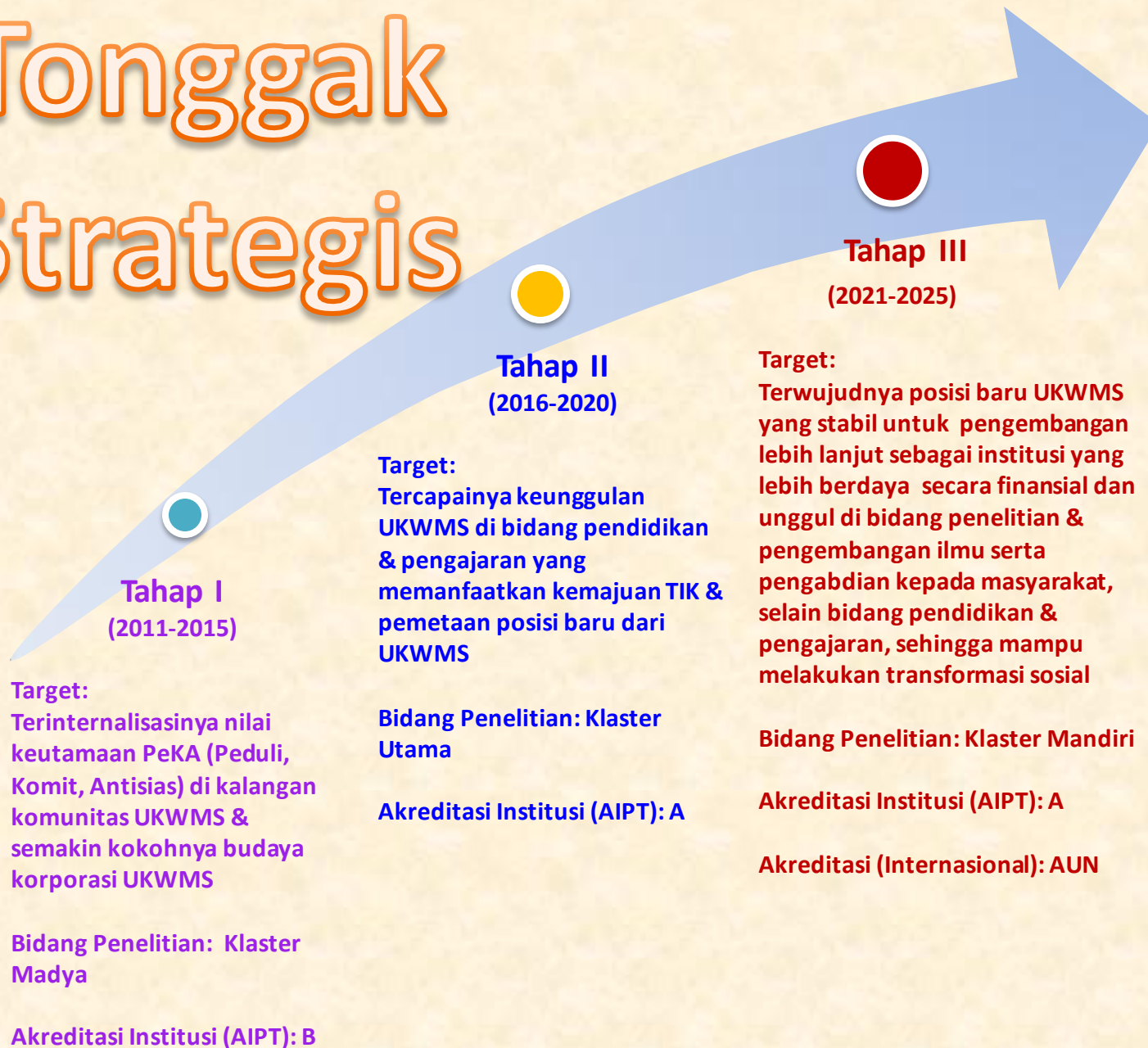
Sesuai dengan

STANDAR yang disepakati

Memegang

JANJI

Tonggak Strategis



Human Resources in the Disruption Era

- The Past (inability to escape the past)
- The Present (trend break)
- The Future (inability to invent the future, lack of innovation and creation)

Sharing economy, access of information, internet, smart city, new business model

Change Management

- Think inside the box
- Iteration: doing the same things better (think outside the box)
- Innovation: doing the new things (think without the box)
- Disruption: doing the new things that make the old ones obsolete

“Instead of risking anything new, let’s play it safe by continuing our slow decline into obsolescence”

STANDAR PENELITIAN

STANDAR ABDIMAS

Kompetensi Lulusan

Penilaian Pendidikan

Pendidik

ISI

Proses

Sarana &
Prasarana

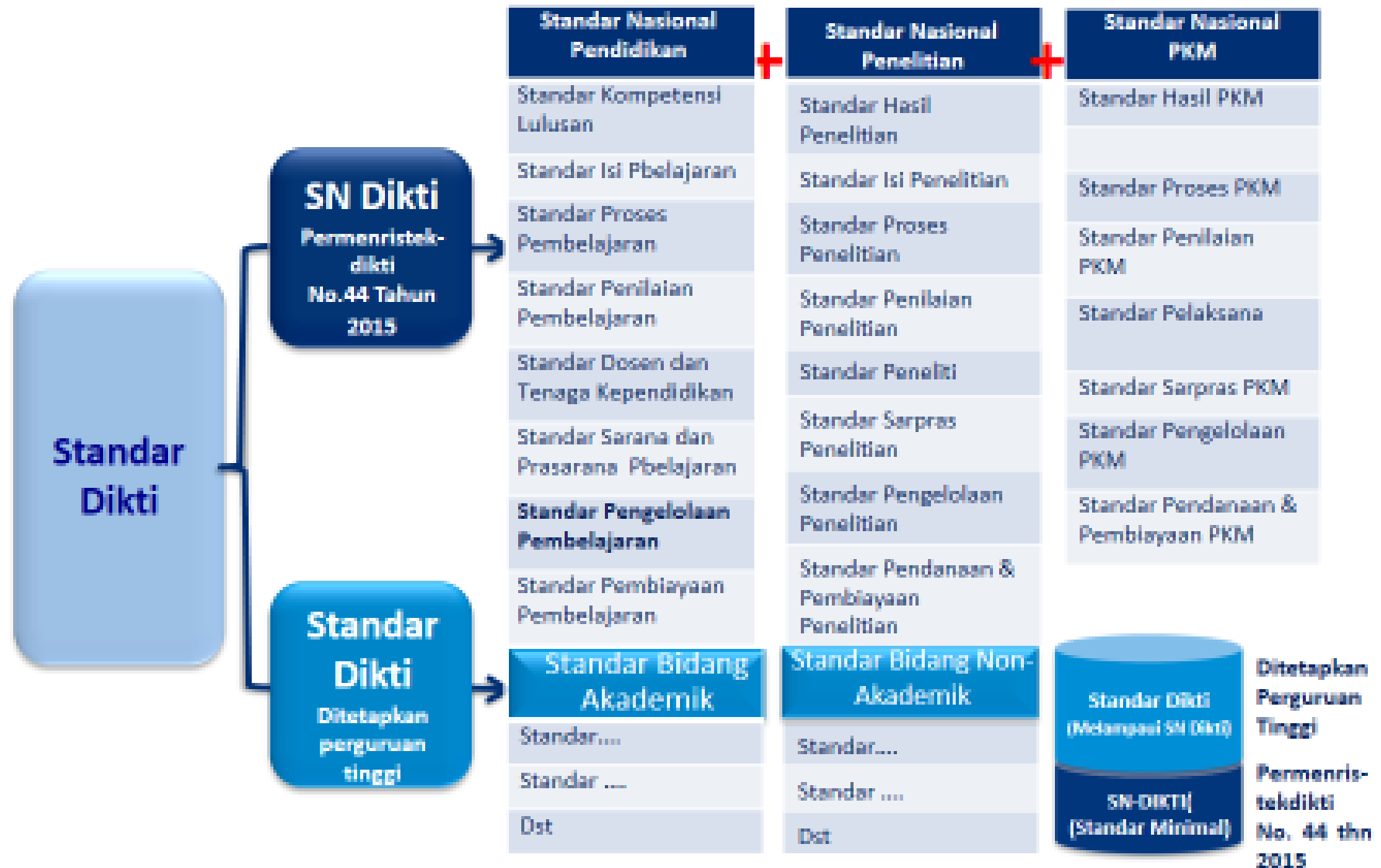
Untuk
dilampaui

Permen-
ristekdikti
No. 44
Tahun 2015

Pengelolaan dan Pendanaan

STANDAR NASIONAL PENDIDIKAN

Pengaturan Tridharma Perguruan Tinggi Di PTS (2)



Sistem Penjaminan Mutu Internal (SPMI)

- Direncanakan
- Dilaksanakan
- Dievaluasi
- Dikendalikan
- Dikembangkan

oleh Perguruan Tinggi
untuk mencapai Standar Pendidikan Tinggi

Permenristekdikti no. 62/2016

Siklus Kegiatan SPMI

- Penetapan Standar Pendidikan Tinggi
- Pelaksanaan Standar Pendidikan Tinggi
- Evaluasi pelaksanaan Standar Pendidikan Tinggi, melalui audit mutu internal
- Pengendalian pelaksanaan Standar Pendidikan Tinggi
- Peningkatan Standar Pendidikan Tinggi

Permenristekdikti no. 62/2016

**MUTU =
RAISE
LEAP +**

SISTEM PENDIDIKAN TINGGI

Efficiency & Productivity

Relevance

Accessibility

Academic
Atmosphere

Learning
Students

Teaching-Learning Proses

Graduates

Equity

Sustainability

Leadership

Internal
Management

Quality
Assurance

Community
Acknowledgement

Partnership

Leadership

Management

Organization

Staff

Funding

Physical Facilities

Laboratories

Library

Curriculum

Resources

Demand HE

+ Innovation

**Peran kepemimpinan
dalam
menginternalisasikan
nilai-nilai budaya mutu
melalui Kebijakan SPMI**

LIFE GOALS

- ▶ To share with others, to play a major and significant role in improving the quality of life of others, to be responsible and accountable on whatever we do, to bring a positive impact on the surrounding community and environment



Why is Leadership Important?

Evidence shows that leadership has increasingly been associated with:

- ▶ high-performing organizations, and

- ▶ that effective leadership in an organization leads to both higher-quality product and service as well as greater profit

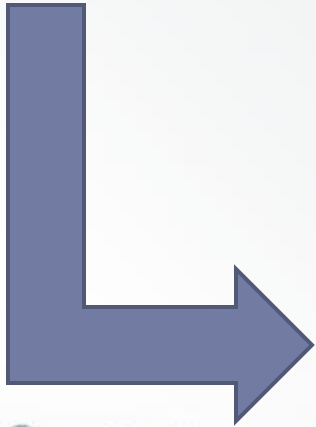


LEADERSHIP

INFLUENCE

II

IS



**EXCELLENT
(PERFORMANCE)**

- Kepemimpinan operasional
- Kepemimpinan organisasional
- Kepemimpinan publik



Passion is the genesis of competencies



That means, to increase competencies we need to take heart



LEADERSHIP IS

**Influencing people and
lifting a person's vision to
high sights
and raising performance
to a higher standard**



Literasi Baru

- Literasi Data: kemampuan untuk membaca, analisis, dan menggunakan informasi (*big data*) di dunia digital
- Literasi Teknologi: memahami cara kerja mesin, aplikasi teknologi (*Coding, Artificial Intelligence, Engineering Principles*)
- Literasi Manusia: *humanities*, komunikasi dan desain
- Pembanding: literasi lama (calistung)

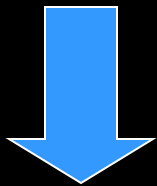
A True Culture of Quality

- Pola Perilaku
- Pola Pikir (IQ)
- Pola Sikap (EQ)

Love Quotient (LQ)?
(kecerdasan kasih, kelembutan hati)

STEMPATHY
(Modern Science & Technology and Empathy)

\$U~~CC~~EE\$



WITHOUT **YOU**, YOUR ORGANIZATION IS NOTHING

BUT WITH **YOU**, YOUR ORGANIZATION IS SOMETHING, MEANINGFUL
AND SIGNIFICANT FOR OTHERS



Butterfly Effect

- ▶ Butterfly effect is a concept believing in great transformation and change that may originate from small things (Heinsberg's uncertainty principle, natural phenomenon has an ordered pattern)
- ▶ Small change in the ecosystem may disturb the natural equilibrium, however the solution of this perturbation is basically in the problem itself

“The solution lies within the problem”

“Solution in this problem lies in the heart of mankind” (Albert Einstein)



Pre-condition and Resources Required

- Innovation !!!
- Synergy / networking
- Availability of finance and staff (this is an investment, not a cost-center)
- People development

Leader is fully responsible and ready to embrace and support all !!!

Aspek Penting Hidup Bersama

- Ada kebutuhan dari setiap individu akan perhatian oleh individu lainnya
- Pimpinan (**badan penyelenggara** dan **pengelola** perguruan tinggi) wajib memberikan perhatian positif seperti sapaan dan pujian kepada dosen, tenaga kependidikan, dan mahasiswa

Peran Pimpinan (1)

- Pengelolaan institusi dan unit kerja secara profesional:
 - Inputs
 - Process
 - Outputs
 - Outcomes
- Penetapan Rencana Induk Pengembangan, Rencana Strategis, Rencana Operasional
- Pemanfaatan Teknologi Informasi dan pengetahuan untuk mendukung proses

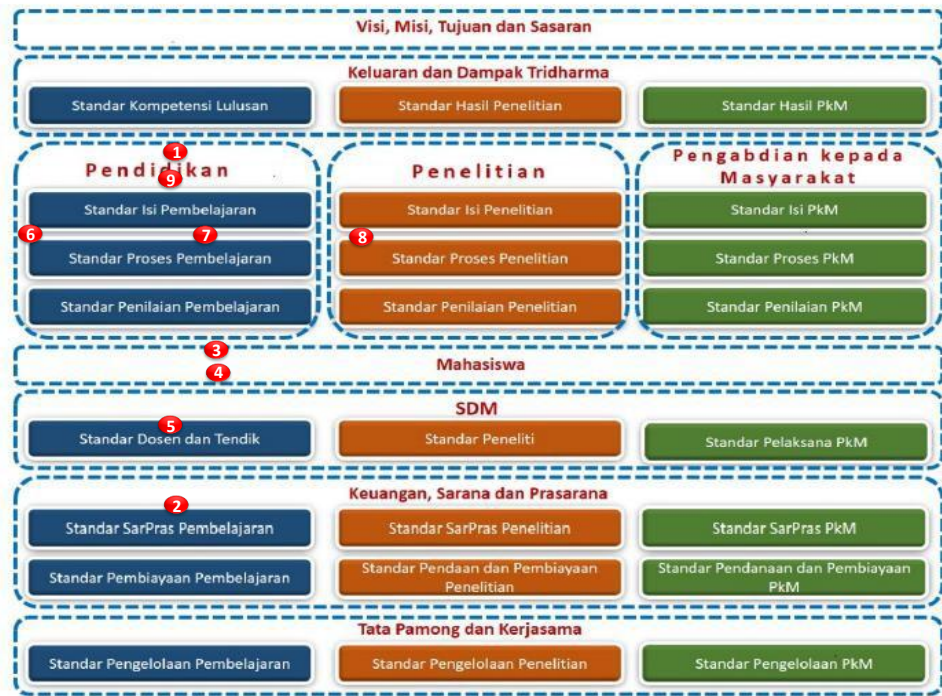
Peran Pimpinan (2)

- Merencanakan
- Mengelola dan melaksanakan
- Mengevaluasi
- Mengendalikan
- Mengembangkan

PENINGKATAN KUALITAS BERKELANJUTAN

Sembilan Kriteria Akreditasi Perguruan Tinggi 3.0 versi BAN-PT

BAB II. KRITERIA



BAB II. KRITERIA

Laporan evaluasi diri harus memuat 9 kriteria akreditasi yang meliputi kriteria:

1. Visi, Misi, Tujuan, dan Strategi
2. Tata Pamong, Tata Kelola, dan Kerjasama
3. Mahasiswa
4. Sumber Daya Manusia
5. Keuangan, Sarana, dan Prasarana
6. Pendidikan
7. Penelitian
8. Pengabdian kepada Masyarakat
9. Luaran dan Capaian Tridharma



Sosialisasi instrumen baru APT 3.0 BAN-PT

Building Commitment

- Not 'business as usual'
- Openness
- Innovation: creative global human talent
- Special distinctive excellence
- Ethical integrity
- University is the place to educate future generation



Terima Kasih